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A NEW SPECIES OF CLAUDOPUS  
FROM NORTHERN CALIFORNIA

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Eight species of *Claudopus sensu* Largent and Benedict (1971) have been reported from the Pacific Coast of the United States (Largent and Thiers, 1972). Three of these, *Claudopus nidulans* (Pers. ex Fr.) Karsten, *C. commixtus* Bres., and *C. variabilis* (Pers.) Gillet, have been transferred to *Phyllostopsis*, *Pleurotellus*, and *Crepidotus*, respectively (Singer, 1975). Three, *C. affinis* Kauff., *C. corticinctus* Kauff., and *C. subargillaceus* Kauff., have smooth basidiospores and have been excluded from the rhodophylloid fungi (Largent, 1971). The remaining two, *C. byssisedus* (Pers. ex Fr.) Gillet and *C. avellaneus* Murr., have pinkish, angular basidiospores and are good species of *Claudopus* (Hesler, 1963; Largent, 1974). The former species has been reported from Washington, Oregon, and California (Kauffman, 1929; Largent, 1974); the latter species has been reported from Oregon (Murrill, 1917).

This report contains a description of a previously undescribed species of *Claudopus*, which represents the second verified species of this genus from California. Abbreviations used in the description and methods of measuring the spores will be found in my study of *Claudopus byssisedus* (Largent, 1974). Color terms used in the description are from Kornerup and Wanscher (1961). The terms *pileipellis*, *suprapellis*, *subpellis*, and *stipitipellis* are used in the same sense as Bas (1969).

***Claudopus graveolens*** Largent, sp. nov. Pileus plano-convexus, bicolor, ad centrum pallide griseibrunneus, alibi atrobrunneigriseus, glaber, haud hygrophanus, margine decurvato, integro, non striato. Odore forti, mephitico. Stipes minutus, excentricus vel lateralis, griseibrunneus, strato denso fibrillarum albidis obtectus.

Cheilocystidia sparsa vel abundantia, hyalina, versiformia. Pleurocystidia desunt. Pileipellis bistrata. Trama pilei heterogenea, ex hyphis lati-

ciferis sparsis, hyphis gracilibus 2–4  $\mu\text{m}$  crassis incrustatis, et hyphis perlatis, inflatis, non incrustatis 12–15  $\mu\text{m}$  crassis constans. Stipitipellis bistrata. Caulocystidia desunt. Pigmentum in vacuolis hypharum praeter hypas incrustatas tramae pilei. Fibulae basi basidiorum adsunt, in hyphis pileipellis rarae, in hypis stipitipellis non visae.

TYPE: California, Trinity Co., at the end of Canyon Creek Road, Shasta-Trinity National Forest, on soil at the margins of a depression and beneath a layer of straw, 10 Nov 1973, *Largent 6579*. Holotype: HSC.

Pileus 7 mm broad, 2 mm high, plano-convex to plane and ovoid in outline; bicolorous with the apical area light grayish brown (6–7,C–D,4) and the remaining portion dark brownish gray (6–7,F,2); surface glabrous, dry, non-hygrophanous, and margin decurved, entire and not translucent-striate; context up to 0.5 mm thick and concolorous with the pileal surface; odor very strong and skunk-like, penetrating and permeating the collecting bag and persistent. Lamellae subdecurrent, subdistant, narrow, 1.5 mm wide, 2.5 mm long, and gray. Stipe minute, 1.5 mm wide, 4.0 mm long, equal, eccentrically to laterally attached, gray-brown and covered by a dense layer of whitish fibrils that are entangled with the hyphae of the basal tomentum.

Spores 8.0–10.0 by 6.0–7.5  $\mu\text{m}$ , average length 8.9  $\mu\text{m}$ , average width 6.8  $\mu\text{m}$ , elongate-angular, L-D 1.5–3.5  $\mu\text{m}$  (average 2.1  $\mu\text{m}$ ), 5–6-sided. Basidia 4-spored, clavate, 25–30 by 8–9  $\mu\text{m}$ . Cheilocystidia scattered to abundant, colorless, versiform in shape, often either capitate or stragulated, (25–45 by 5–10  $\mu\text{m}$ , capitate apex 5–10  $\mu\text{m}$ , average length 32.9  $\mu\text{m}$ , average width 6.9  $\mu\text{m}$ ); pleurocystidia absent. Pileipellis two-layered; suprapellis a cutis, hyphae repent, at times with an uplifted cylindroclavate terminal cell; subjellis tightly entangled. Pileal trama heterogenous, with scattered lactifers and two types of hyphae—very slender hyphae 2–4  $\mu\text{m}$  in diameter with external incrustations, soluble in 3% KOH, interspersed with very broad, inflated, non-incrusted hyphae 12–15  $\mu\text{m}$  in diameter. Stipitipellis two-layered; suprapellis a layer of entangled, narrowly cylindrical hyphae 1–3  $\mu\text{m}$  in diameter, at times with capitate to swollen apices, 5–8  $\mu\text{m}$  in diameter; subpellis a cutis. Caulocystidia absent. Pigmentation vacuolar except for the externally incrustated slender hyphae that ramify throughout the pileal trama. Clamp connections present at the base of the basidia; rare on the hyphae of the pileipellis; absent at the base of the basidia and not observed on the hyphae of the stipitipellis.

Unique features of *Claudopus graveolens* are its penetrating mephitic odor, minute pleurotoid stature, heterogenous pileal trama, external incrustation on the narrow hyphae of the pileal trama, and whitish fibrils covering the stipe.

The only other *Claudopus* from North America with an odor similar to *C. graveolens* is *Claudopus mephiticus* Murr., which is distinctive due to its greenish- or yellowish-white pileus. *Claudopus byssisedus* is dis-

tinguished by its greyish orange to brownish orange pileus, its dense, whitish universal veil, and its farinaceous taste and odor; *C. avellaneus* is distinguished by its pale-avellaneous, finely tomentose pileus and its mild odor and taste.

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## GALIUM MEXICANUM (RUBIACEAE) OF CENTRAL AMERICA AND WESTERN NORTH AMERICA

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*Galium mexicanum* Kunth, in the present expanded sense, occurs in mountainous areas from Panama northward and westward to the state of Washington near the Canadian border (fig. 1) and on Socorro Island. It has not been collected in northeastern Mexico nor in Baja California.

The species was described in 1818 by Kunth (type near Guanajuato) with "*foliis octonis*". In 1849, Gray published *Galium asperimum* (type from New Mexico) with "*foliis omnibus senis*" and with some considerable floral differences, which he did not mention. He followed this in 1880 with *G. asperimum* var. *asperulum* from California, based principally on leaf characters. In 1898, Greenman named two varieties of *G. mexicanum*, namely var. *glabratum* from Oaxaca, based on lack of hairs, and var. *platyphyllum*, based on leaf shape and indumentum, with citation of specimens from Chiapas, Oaxaca, and Jalisco. There are thus currently five names, of which I propose to recognize the first three, while changing the status of *G. asperimum* Gray and its var. *asperulum* Gray to subspecies of *G. mexicanum*. A new subspecies has been added,